Dell UltraSharp 24 Monitor

User's Guide

Model No. : UP2414Q
Regulatory model: UP2414Qt
Regulatory type: UP2414Q001

NOTE: A NOTE indicates important information that helps you make better use of your computer.

CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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About Your Monitor

Package Contents

Your monitor ships with the components shown below. Ensure that you have received all the components and Contact Dell if something is missing.

NOTE: Some items may be optional and may not ship with your monitor. Some features or media may not be available in certain countries.

NOTE: To set up with any other stand, please refer to the respective stand setup guide for setup instructions.

	• Monitor
	• Stand
	• Cable Cover

	• Power Cable (varies by countries)
	• DisplayPort cable (Mini-DP to DP)
	• USB 3.0 upstream cable (enables the USB ports on the monitor)
	• Drivers and Documentation media • Quick Setup Guide • Product and Safety Information Guide • Factory Calibration Report

Product Features

The Dell UltraSharp 24 Monitor (Model # UP2414Q) has an active matrix, thin-film transistor (TFT), liquid crystal display (LCD), and LED backlight. The monitor features include:

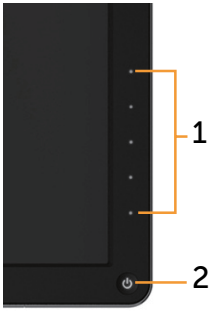
- 60.47 cm (23.8-inch) active area display (Measured diagonally) 3840 x 2160 resolution, plus full-screen support for lower resolutions.
- Tilt, swivel, vertical extension and rotate adjustment capabilities.
- Stand lock.
- Superb pin sharp clarity with high PPI of 185 ppi.
- Removable pedestal and Video Electronics Standards Association (VESA™) 100 mm mounting holes for flexible mounting solutions.

- Plug and play capability if supported by your system.
- On-Screen Display (OSD) adjustments for ease of set-up and screen optimization.
- Software and documentation media includes an information file (INF), Image color Matching File (ICM), Dell Display Manager software application and product documentation. Dell Display Manager included (comes in the CD attached with the monitor).
- Security lock slot.
- Asset Management Capability.
- Energy Star Compliant.
- EPEAT Gold Compliant.
- RoHS compliant.
- BFR/PVC-Free (Exclude external cables).
- Arsenic-Free glass and Mercury Free for Panel only.
- Energy Gauge shows the energy level being consumed by the monitor in real time.
- TCO Certified Displays.

Identifying Parts and Controls

Front View

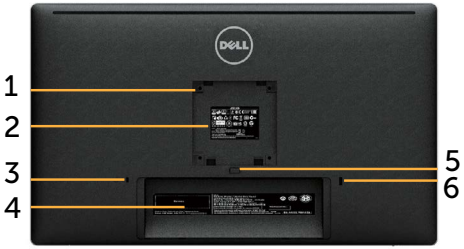
Front View



Front panel controls

Label	Description
1	Function buttons (For more information, see Operating the Monitor)
2	Power On/Off button (with LED indicator)

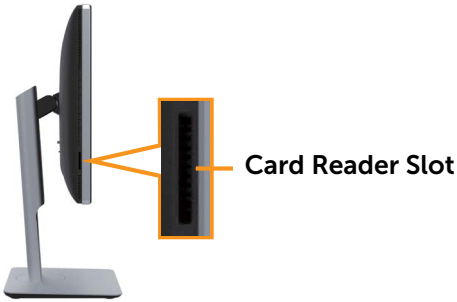
Back View



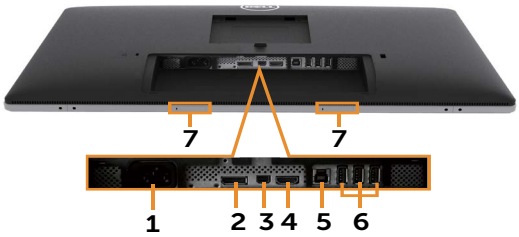
Back view **Back view with monitor stand**

Label	Description	Use
1	VESA mounting holes (100 mm x 100 mm - behind attached VESA Cover)	Wall mount monitor using VESA-compatible wall mount kit (100 mm x 100 mm).
2	Regulatory label	Lists the regulatory approvals.
3	Security lock slot	Secures monitor with security cable lock.
4	Barcode serial number label	Refer to this label if you need to contact Dell for technical support.
5	Stand release button	Release stand from monitor.
6	USB downstream port with battery charging	Connect your USB device. You can only use this connector after you have connected the USB cable to the computer and USB upstream connector on the monitor.
7	Cable management slot	Use to organize cables by placing them through the slot.

Side View



Bottom View



Label	Description	Use
1	AC power connector	To connect the monitor power cable.
2	DisplayPort in connector	Connect your computer with DP cable.
3	Mini DisplayPort in connector	Connect your computer with Mini DP to DP cable.
4	HDMI connector	Connect your computer with HDMI cable.
5	USB upstream port	Connect the USB cable that comes with your monitor to the computer. Once this cable is connected, you can use the USB downstream connectors on the monitor.
6	USB downstream ports	Connect your USB device. You can only use this connector after you have connected the USB cable to the computer and USB upstream connector on the monitor.
7	Dell Soundbar mounting slots	Attaches the optional Dell Soundbar (model# AC511 only). (Sealed by removable plastic sheets) NOTE: Dell soundbar is sold separately.

Monitor Specifications

Flat Panel Specifications

Screen type	Active matrix - TFT LCD
Panel type	In Plane Switching
Viewable image Diagonal Horizontal, Active Area Vertical, Active Area Area	 60.47 cm (23.8-inches viewable image size) 527.04 mm (20.7 inches) 296.46 mm (11.7 inches) 156246.28 mm^2 (242.2 $inches^2$)
Pixel pitch	0.137 mm
PPI (Pixel per inch)	185 ppi
Viewing angle	178° (vertical) typ, 178° (horizontal) typ
Luminance output	350 cd/m^2 (typ)
Contrast ratio	1000:1 (typ)
Dynamic Contrast ratio	2,000,000:1
Faceplate coating	Antiglare with hard-coating 3H
Backlight	LED edge light system
Response Time	8 ms (GtG typical)
Color depth	1.07 Billion colors, 8 Bits + A-FRC
Color gamut (Typical)	100% (sRGB) 99% (Adobe RGB)

Resolution Specifications

Horizontal scan range	30 kHz to 140 kHz (automatic)
Vertical scan range	24 Hz to 75 Hz (automatic)
Maximum resolution	3840 x 2160 at 60 Hz DP 1.2* 3840 x 2160 at 30 Hz HDMI

* To display 3840 x 2160 at 60 Hz, DP1.2 must be enabled and the DP source's graphics card must be DP1.2 certified with MST feature, capable of supporting resolution up to 3840 x 2160 at 60Hz and its driver supports DisplayID v1.3.

Video Supported Modes

Video display capabilities (HDMI playback)	480p, 576p, 720p and 1080p

Preset Display Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (Horizontal/ Vertical)
720 x 400	31.5	70.0	28.3	-/+
640 x 480	31.5	60.0	25.2	-/-
640 x 480	37.5	75.0	31.5	-/-
800 x 600	37.9	60.0	40.0	+/+
800 x 600	46.9	75.0	49.5	+/+
1024 x 768	48.4	60.0	65.0	-/-
1024 x 768	60.0	75.0	78.8	+/+
1152 x 864	67.5	75.0	108.0	+/+
1280 x 800	49.3	60.0	71.0	+/+
1280 x 1024	64.0	60.0	108.0	+/+
1280 x 1024	80.0	75.0	135.0	+/+
1600 x 1200	67.5	60.0	148.5	-/+
1920 x 1200	74.6	60.0	193.5	-/+
2048 x 1280 - R	78.9	60.0	174.3	+/-
2560 x 1600	98.7	60.0	168.5	+/-
3840 x 2160	54.0	24.0	297.0	+/+
3840 x 2160	67.5	30.0	297.0	+/+
3840 x 2160	60 Hz (DP source only)*			

* To display 3840 x 2160 at 60 Hz, DP1.2 must be enabled and the DP source's graphics card must be DP1.2 certified with MST feature, capable of supporting resolution up to 3840 x 2160 at 60Hz and its driver supports DisplayID v1.3.

Electrical Specifications

Video input signals	Digital video signal for each differential line, pre-differential line at 100 ohm impedance. DP1.2/HDMI1.4 signal input support
AC input voltage/ frequency/current	100 to 240 VAC/50 or 60 Hz ± 3 Hz/2.1 A (Max.)
Inrush current	120 V:30 A (Max.) 240 V:60 A (Max.)

Physical Characteristics

Connector type	DisplayPort connector. Mini DisplayPort connector. HDMI connector. USB 3.0 update stream port connector. USB 3.0 down stream port connector x 4. (Port with lightning icon is for BC 1.2)
Signal cable type	DisplayPort to Mini DisplayPort 1.8 m cable. USB 3.0 1.8 m cable.
Dimensions (with stand)	
Height (extended)	501.7 mm (19.75 inches)
Height (compressed)	371.1 mm (14.61 inches)
Width	569.0 mm (22.40 inches)
Depth	192.0 mm (7.56 inches)
Dimensions (without stand)	
Height	338.5 mm (13.33 inches)
Width	569.0 mm (22.40 inches)
Depth	56.3 mm (2.22 inches)
Stand dimensions	
Height (extended)	400.8 mm (15.78 inches)
Height (compressed)	359.3 mm (14.14 inches)
Width	240.0 mm (9.45 inches)
Depth	192.0 mm (7.56 inches)
Weight	
Weight with packaging	10.0 kg (22.05 lb)
Weight with stand assembly and cables	7.1 kg (15.65 lb)
Weight without stand assembly (For wall mount or VESA mount considerations - no cables)	4.8 kg (10.58 lb)
Weight of stand assembly	2.0 kg (4.41 lb)
Front frame gloss	Black Frame - 5.0 gloss unit (max.)

Environmental Characteristics

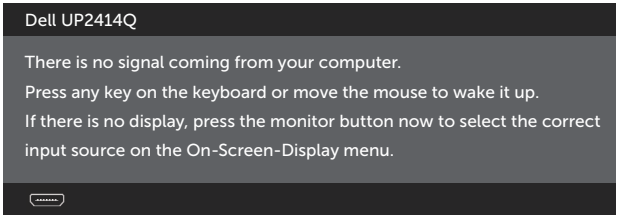
Temperature	
Operating	0 °C to 40 °C
Non-operating	Storage: -20 °C to 60 °C (-4 °F to 140 °F) Shipping: -20 °C to 60 °C (-4 °F to 140 °F)
Humidity	
Operating	10% to 80% (non-condensing)
Non-operating	Storage: 5% to 90% (non-condensing) Shipping: 5% to 90% (non-condensing)
Altitude	
Operating	5,000 m (16,400 ft) max
Non-operating	12,191 m (40,000 ft) max
Thermal dissipation	409.46 BTU/hour (maximum) 307.09 BTU/hour (typical)

Power Management Modes

If you have VESA's DPM™ compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. This is referred to as Power Save Mode. If the computer detects input from keyboard, mouse, or other input devices, the monitor automatically resumes functioning. The following table shows the power consumption and signaling of this automatic power saving feature:

VESA Modes	Horizontal Sync	Vertical Sync	Video	Power Indicator	Power Consumption
Normal operation	Active	Active	Active	White	90 W (typical)/ 120 W (maximum)
Active-off mode	Inactive	Inactive	Off	Glowing White	Less than 1.2 W (with USB Hub)
Switch off	-	-	-	Off	Less than 0.5 W

The OSD will only function in the normal operation mode. When any button is pressed in Active-off mode, the following message will be displayed:

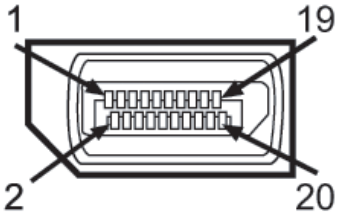

Dell UP2414Q
There is no signal coming from your computer.
Press any key on the keyboard or move the mouse to wake it up.
If there is no display, press the monitor button now to select the correct input source on the On-Screen-Display menu.

Activate the computer and the monitor to gain access to the OSD.

NOTE: This monitor is **ENERGY STAR**®-compliant.

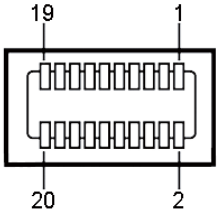
Pin Assignments

DisplayPort Connector (DP in and DP out)



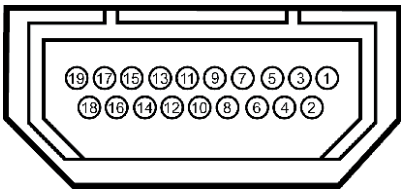
Pin Number	20-pin Side of the monitor connector	Pin Number	20-pin Side of the monitor connector
1	ML0(p)	11	GND
2	GND	12	ML3(n)
3	ML0(n)	13	GND
4	ML1(p)	14	GND
5	GND	15	AUX(p)
6	ML1(n)	16	GND
7	ML2(p)	17	AUX(n)
8	GND	18	HPD
9	ML2(n)	19	DP_PWR Return
10	ML3(p)	20	+3.3 V DP_PWR

Mini DisplayPort Connector



Pin Number	20-pin Side of the monitor connector	Pin Number	20-pin Side of the monitor connector
1	GND	11	ML2(p)
2	Hot Plug Detect	12	ML0(p)
3	ML3(n)	13	GND
4	GND	14	GND
5	ML3(n)	15	ML1(n)
6	GND	16	AUX(p)
7	GND	17	ML1(p)
8	GND	18	AUX(n)
9	ML2(n)	19	GND
10	ML0(p)	20	+3.3 V DP_PWR

19-pin HDMI Connector



Pin Number	19-pin Side of the monitor connector	Pin Number	19-pin Side of the monitor connector
1	TMDS DATA 2+	11	TMDS CLOCK SHIELD
2	TMDS DATA 2 SHIELD	12	TMDS CLOCK-
3	TMDS DATA 2-	13	Floating
4	TMDS DATA 1+	14	Floating
5	TMDS DATA 1 SHIELD	15	DDC CLOCK (SDA)
6	TMDS DATA 1-	16	DDC DATA (SDA)
7	TMDS DATA 0+	17	GROUND
8	TMDS DATA 0 SHIELD	18	+5 V POWER
9	TMDS DATA 0-	19	HOT PLUG DETECT
10	TMDS CLOCK		

Universal Serial Bus (USB) Interface

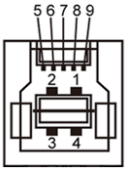
This section gives you information about the USB ports that are available on the back and bottom of your monitor.

NOTE: The USB ports on this monitor are USB 3.0 compliant.

Transfer speed	Data Rate	Power Consumption
SuperSpeed	5 Gbps	4.5 W (Max., each port)
Hi-Speed	480 Mbps	2.5 W (Max., each port)
Full speed	12 Mbps	2.5 W (Max., each port)

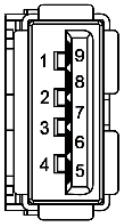
NOTE: Up to 1.5 A on USB downstream port (port with SS lightning icon) with BC 1.2 compliance devices; up to 0.9 A on the other 3 USB downstream ports.

USB Upstream Connector



Pin Number	Signal Name
1	VBUS
2	D-
3	D+
4	GND
5	StdB_SSTX-
6	StdB_SSTX+
7	GND_DRAIN
8	StdB_SSRX-
9	StdB_SSRX+
Shell	Shield

USB Downstream Connector



Pin Number	Signal Name
1	VBUS
2	D-
3	D+
4	GND
5	StdA_SSRX-
6	StdA_SSRX+
7	GND_DRAIN
8	StdA_SSTX-
9	StdA_SSTX+
Shell	Shield

USB ports

- 1 upstream - bottom
- 4 downstream - 1 at back, 3 at bottom

  Power Charging Port- the one on the rear cover (Port with SS lightning icon); supports fast current charging capability if the device is BC 1.2 compatible.

NOTE: USB 3.0 functionality requires a USB 3.0 compatible computer and devices.

NOTE: For computers running Windows® 7 must have Service Pack 1 (SP1) installed. The monitor's USB interface works only when the monitor is On or in Power Save Mode. If you turn Off the monitor and then turn it On, the attached peripherals may take a few seconds to resume normal functionality.

Card Reader Specifications

Overview

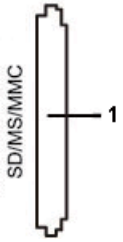
- The Flash Memory Card Reader is a USB storage device that allows users to read and write information from and into the memory card.
- The Flash Memory Card Reader is automatically recognized by Microsoft® Windows® Vista, Windows® 7 Service Pack 1 (SP1) and Windows® 8/Windows® 8.1.
- Once installed and recognized, memory card (slot) appears drive letter.
- All standard file operations (copy, delete, drag-and-drop, etc.) can be performed with this drive.

NOTE: Install the Card Reader driver (provided in the Drivers and Documentation Media CD that comes with the monitor) to ensure memory cards are detected properly when inserted into the card slot.

Features

The Flash Memory Card Reader has the following features:

- Supports Microsoft® Windows® Vista, Windows® 7 Service Pack 1 (SP1) and Windows® 8/Windows® 8.1 operating systems.
- Mass Storage Class device (No drivers are required under Microsoft® Windows® Vista, Windows® 7 Service Pack 1 (SP1) and Windows® 8/Windows® 8.1).
- Supports various memory card media.



The following table lists the memory cards supported:

Slot Number	Flash memory cards type
1	MS Pro HG, High Speed Memory Stick (HSMS), Memory Stick PRO (MSPRO), Memory Stick Duo(w Adapter), MS Duo Secure Digital (Mini-SD), Secure Digital Card, Mini Secure Digital (w Adaptor), TransFlash (SD, including SDHC), MultiMediaCard (MMC)

Maximum Card Capacity Supported by the UP2414Q card reader

Card type	Support Specification	Support Maximum Capacity by Spec.	UP2414Q
MS Pro HG	Memory Stick Pro-HG Support USB 3.0 speed	32 GB	Supported
MS Duo	Memory Stick Duo Specification	32 GB	Supported
SD	SD Memory Card support USB 3.0 speed	1 TB	Supported
MMC	Multi Media Card System Specification	32 GB	Supported

General

Connection type	USB 2.0/3.0 High and Super Speed Device (USB High Speed Device compatible)
Supported OS	Microsoft® Windows® Vista, Windows® 7 Service Pack 1 (SP1) and Windows® 8/Windows® 8.1.

Plug and Play Capability

You can install the monitor in any Plug and Play-compatible system. The monitor automatically provides the computer system with its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so the system can configure itself and optimize the monitor settings. Most monitor installations are automatic; you can select different settings if desired. For more information about changing the monitor settings, see Operating the Monitor.

LCD Monitor Quality and Pixel Policy

During the LCD Monitor manufacturing process, it is not uncommon for one or more pixels to become fixed in an unchanging state which are hard to see and do not affect the display quality or usability. For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.

Maintenance Guidelines

Cleaning Your Monitor

⚠ **WARNING:** Read and follow the Safety Instructions before cleaning the monitor.

⚠ **WARNING:** Before cleaning the monitor, unplug the monitor power cable from the electrical outlet.

For best practices, follow the instructions in the list below while unpacking, cleaning, or handling your monitor:

- To clean your antistatic screen, lightly dampen a soft, clean cloth with water. If possible, use a special screen-cleaning tissue or solution suitable for the antistatic coating. Do not use benzene, thinner, ammonia, abrasive cleaners, or compressed air.
- Use a lightly-dampened, warm cloth to clean the monitor. Avoid using detergent of any kind as some detergents leave a milky film on the monitor.
- If you notice white powder when you unpack your monitor, wipe it off with a cloth.
- Handle your monitor with care as dark-colored monitors may scratch and show white scuff marks more than light-colored monitors.
- To help maintain the best image quality on your monitor, use a dynamically changing screen saver and turn Off your monitor when not in use.

Setting Up the Monitor

Attaching the Stand

NOTE: The stand is detached from monitor when it is shipped from the factory.

NOTE: This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for set up instructions.

To attach the monitor stand:

1. Remove the cover and place the monitor on it.
2. Fit the two tabs on the upper part of the stand to the groove on the back of the monitor.
3. Press the stand till it snaps into its place.

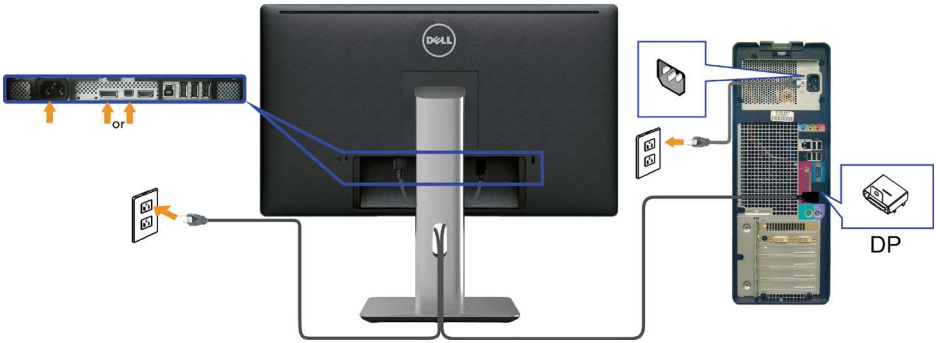
Connecting Your Monitor

WARNING: Before you begin any of the procedures in this section, follow the Safety Instructions.

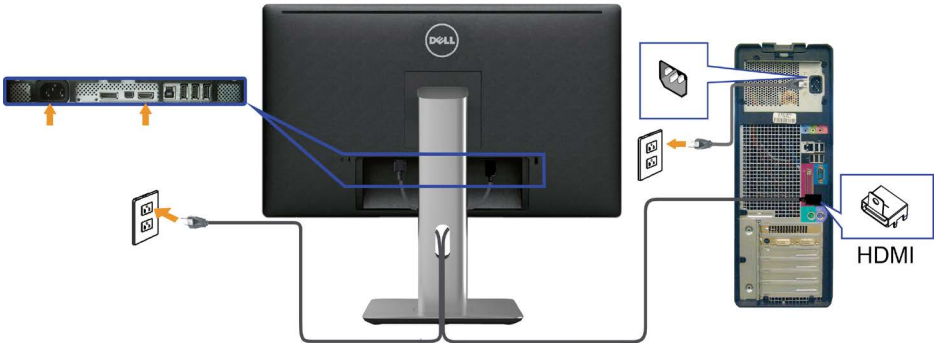
To connect your monitor to the computer:

1. Turn Off your computer and disconnect the power cable.
2. Connect the black HDMI cable (optional) or the DP (DisplayPort) cable to the corresponding video port on the back of your computer.
   Do not use all the cables on the same computer.
   Use all of the cables only when they are connected to different computers with appropriate video systems.

Connecting the black DisplayPort (or miniDP) cable



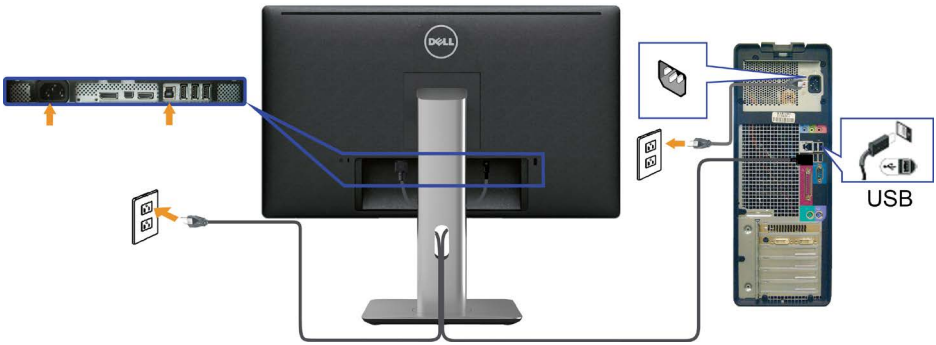
Connecting the black HDMI Cable (Optional)



Connecting the USB 3.0 cable

After you have completed connecting the DP/mini DP/HDMI cable, follow the procedure below to connect the USB 3.0 cable to the computer and complete your monitor setup:

1. Connect the upstream USB 3.0 port (cable supplied) to an appropriate USB 3.0 port on your computer. (See Bottom View for details.)
2. Connect USB 3.0 peripherals to the downstream USB 3.0 ports on the monitor.
3. Plug the power cables for your computer and monitor into a nearby outlet.
4. Turn On the monitor and the computer.
   If your monitor displays an image, installation is complete. If it does not display an image, see Troubleshooting.
5. Use the cable slot on the monitor stand to organize the cables.



△ **CAUTION:** The graphics are used for the purpose of illustration only. Appearance of the computer may vary.

Organizing the Cables

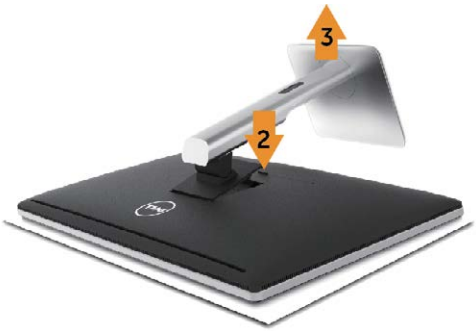
After attaching all necessary cables to your monitor and computer, (See Connecting Your Monitor for cable attachment,) use the cable management slot to organize all cables as shown above.

Attaching the Cable Cover

Removing the Stand

NOTE: To prevent scratches on the LCD screen while removing the stand, ensure that the monitor is placed on a clean surface.

NOTE: This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for set up instructions.



To remove the stand:

1. Place the monitor on a flat surface.
2. Press and hold the stand release button.
3. Lift the stand up and away from the monitor.

Wall Mounting (Optional)

(Screw dimension: M4 x 10 mm).

Refer to the instructions that come with the VESA-compatible wall mounting kit.

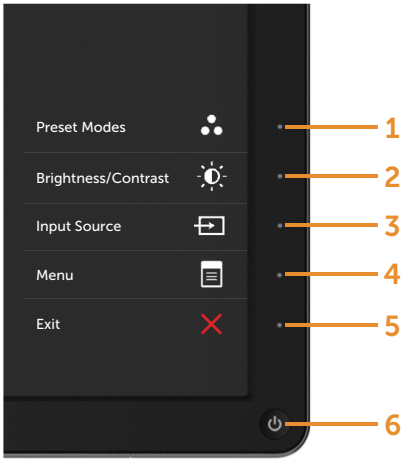
1. Place the monitor panel on a soft cloth or cushion on stable flat table.
2. Remove the stand.
3. Use a screwdriver to remove the four screws securing the plastic cover.
4. Attach the mounting bracket from the wall mounting kit to the monitor.
5. Mount the monitor on the wall by following the instructions that came with the wall mounting kit.

NOTE: For use only with UL Listed Wall Mount Bracket with minimum weight/load bearing capacity of 4.8 kg.

Operating the Monitor

Using the Front Panel Controls

Use the control buttons on the front of the monitor to adjust the characteristics of the image being displayed. As you use these buttons to adjust the controls, an OSD shows the numeric values of the characteristics as they change.



The following table describes the front panel buttons:

Front panel Button		Description
1	Shortcut key/Preset Modes	Use this button to choose from a list of preset color modes.
2	Shortcut key/ Brightness/Contrast	Use this button to directly access the **Brightness/ Contrast** menu.

3	 Input Source	Use the **Input Source** button to select between different video signals that may be connected to your monitor. • DisplayPort input • Mini DisplayPort input • HDMI input Displays the source selection bar. Press and buttons to move between the setting options and press to select the input source you want.
4	 Menu	Use the **Menu** button to launch the on-screen display (OSD) and select the OSD Menu. See Accessing the Menu System.
5	 Exit	Use the **Exit** button to go back to the main menu or exit the OSD main menu.
6	 Power (with power light indicator)	Use the **Power** button to turn the monitor On and Off. The white LED indicates the monitor is On and fully functional. A glowing white LED indicates DPMS Power Save Mode.

Front Panel Button

Use the buttons on the front of the monitor to adjust the image settings.

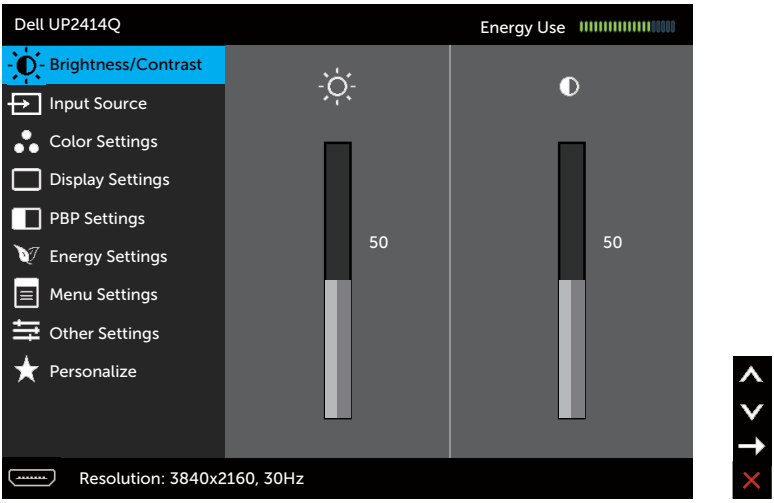
Front panel Button		Description
1	Up	Use the **Up** button to adjust (increase ranges) items in the OSD menu.
2	Down	Use the **Down** button to adjust (decrease ranges) items in the OSD menu.
3	OK	Use the **OK** button to confirm your selection.
4	Back	Use the **Back** button to go back to the previous menu.

Using the On-Screen Display (OSD) Menu

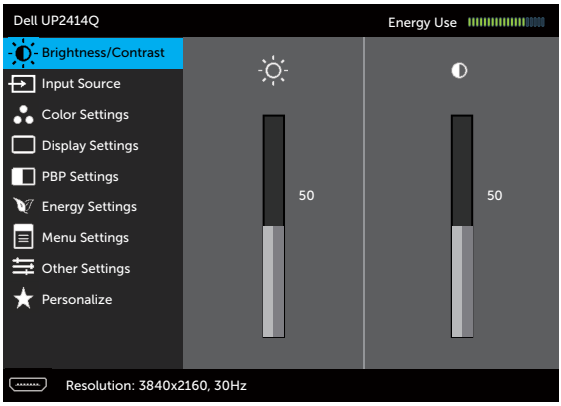
Accessing the Menu System

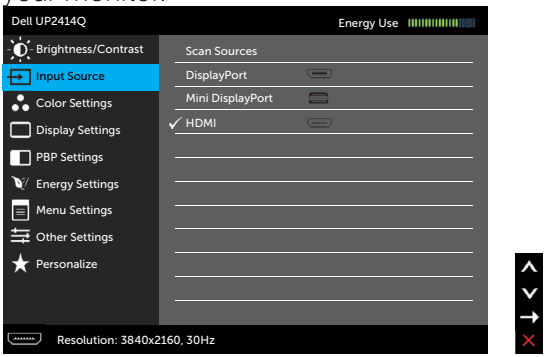
NOTE: If you change the settings and then either proceed to another menu or exit the OSD menu, the monitor automatically saves those changes. The changes are also saved if you change the settings and then wait for the OSD menu to disappear.

1. Press the **Menu** button to launch the OSD menu and display the main menu.

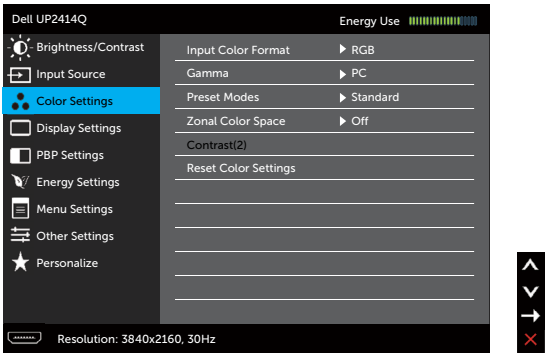


2. Press the ▲ and ▼ buttons to move between the setting options. As you move from one icon to another, the option name is highlighted. See the following table for a complete list of all the options available for the monitor.
3. Press the → or ✓ button once to activate the highlighted option.
4. Press the ▲ and ▼ buttons to select the desired parameter.
5. Press the → button to enter the slide bar and then use the ▲ or ▼ button, according to the indicators on the menu, to make your changes.
6. Press the ↩ button once to return to the main menu to select another option or press the ✕ button two or three times to exit from the OSD menu.

Icon	Menu and Submenus	Description
	Energy Use	This meter shows the energy level being consumed by the monitor in real time.
	Brightness/ Contrast	Use this menu to activate **Brightness/Contrast** adjustment. 
	Brightness	**Brightness** adjusts the luminance of the backlight. Press the button to increase brightness and press the button to decrease brightness (min 0 ~ max 100). **NOTE:** Manual adjustment of **Brightness** is disabled when **Dynamic Contrast** is switched On and when **Preset Modes** is set to **CAL1** or **CAL2**.
	Contrast	Adjust **Brightness** first, and then adjust **Contrast** only if further adjustment is necessary. Press the button to increase contrast and press the button to decrease contrast (min 0 ~ max 100). The **Contrast** function adjusts the degree of difference between darkness and lightness on the monitor screen. **NOTE**: Manual adjustment of **Contrast** is disabled when **Preset Modes** is set to **CAL1** or **CAL2**.

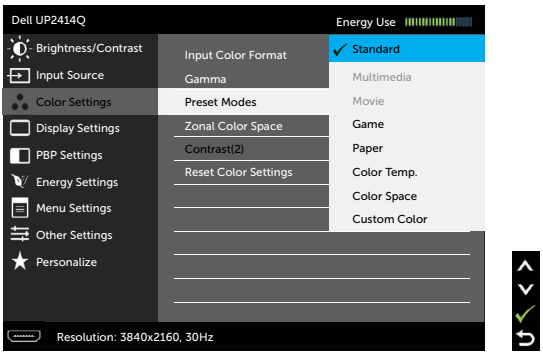
	Input Source	Use the **Input Source** menu to select between different video signals that may be connected to your monitor. 
	Scan Sources	Select **Scan Sources** to scan for available input signals.
	DisplayPort	Select **DisplayPort** input when you are using the DisplayPort (DP) connector. Press the ✓ button to select the DisplayPort input source.
	Mini DisplayPort	Select **Mini DisplayPort** input when you are using the Mini DisplayPort (DP) connector. Press the ✓ button to select the Mini DisplayPort input source.
	HDMI	Select **HDMI** input when you are using the HDMI connector. Press the ✓ button to select the HDMI input source.

Color Settings	Use the **Color Settings** menu to adjust the monitor's color settings .



Input Color Format	Allows you to set the video input mode to: • **RGB:** Select this option if your monitor is connected to a computer or DVD player using the HDMI or DP/Mini DP cable. • **YPbPr:** Select this option if your DVD player supports only YPbPr output.
Gamma	Allows you to set the Gamma to **PC** or **MAC**.

Preset Modes Allows you to choose from a list of preset color modes.



- **Standard:** Loads the monitor's default color settings. This is the default preset mode.
- **Multimedia:** Loads color settings ideal for multimedia applications. Applies to HDMI input with CEA timing (YUV color domain) only.
- **Movie:** Loads color settings ideal for movies. Applies to HDMI input with CEA timing (YUV color domain) only.
- **Game:** Loads color settings ideal for most gaming applications.
- **Paper:** Loads brightness and sharpness settings ideal for viewing text. Blend the text background to simulate paper media without affecting color images. Applies to RGB input format only.
- **Color Temp.:** The screen appears warmer with a red/yellow tint with slider set at 5,000K or cooler with blue tint with slider set at 10,000K.
- **Color Space:** Allows users to select the color space: **Adobe RGB, sRGB, CAL1, CAL2.**
  - **Adobe RGB:** This mode is compatible with Adobe RGB (99% coverage).
  - **sRGB:** Emulates 100% sRGB.
  - **CAL1/CAL2:** User calibrated preset mode using Dell Ultrasharp Color Calibration Software or other Dell approved software. Dell Ultrasharp Color Calibration Software works with the X-rite colorimeter i1Display Pro. The i1Display Pro can be purchased from the Dell Electronics, Software and Accessories website.

NOTE: Accuracy of **sRGB**, **AdobeRGB**, **CAL1** and **CAL2** are optimized for RGB input color format. For optimal color accuracy of sRGB and AdobeRGB, turn **Uniformity Compensation** to **Off** in the OSD. **NOTE: Factory Reset** will remove all calibrated data in **CAL1** and **CAL2**.

- **Custom Color:** Allows you to manually adjust the color settings. Press the ^ and v buttons to adjust the Red, Green, and Blue values and create your own preset color mode.

Use the ^ and v buttons to select the Gain, Offset, Hue, Saturation.

- **Gain:** Select it to adjust input RGB signal gain level (default value are 100).
- **Offset:** Select it to adjust RGB black-level offset value (default value are 50) to control your monitor base color.
- **Hue:** Select it to adjust RGBCMY hue value individually (default value are 50).
- **Saturation:** Select it to adjust RGBCMY saturation value individually (default value are 50).

Zonal Color Space

Allows you to display different color spaces on the left and right half of the screen. When **Zonal Color Space** is On, the right half retains the current selected color space. You can select the color space of the left half with options on the list.

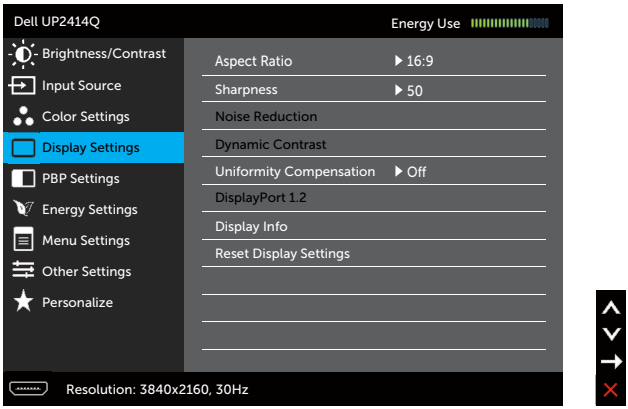
- **Off:** Disables zonal color space feature.
- **Adobe RGB:** This mode is compatible with Adobe RGB (99% coverage).
- **sRGB:** Emulates 100% sRGB.
- **CAL1/CAL2:** User calibrated preset mode using Dell Ultrasharp Color Calibration Software or other Dell approved software.
  Dell Ultrasharp Color Calibration Software works with the X-rite colorimeter i1Display Pro. The i1Display Pro can be purchased from the Dell Electronics, Software and Accessories website.

NOTE: When **Zonal Color Space** is turned on, the left side of the screen will adopt the brightness setting of the right side. Furthermore the factory **Uniformity Compensation** and **Dynamic Contrast** will be disabled.

	NOTE: To ensure optimal color accuracy it is not recommended to adjust the **Contrast** or **Brightness** settings after calibrating **CAL1** and **CAL2**. It is recommended to calibrate **CAL1** and **CAL2** to the same desired luminance level before turning on **Zonal Color Space**.
Contrast (2)	Allows you to adjust the contrast on the left side of the screen when **Zonal Color Space** or/and **PBP Mode** is turned on.
Border	Allows you to turn the blue border Off or On. The border is to indicate the section of the screen that may be in a different color space.
Hue	This feature can shift color of video image to green or purple. This is used to adjust the desired flesh tone color. Use ^ or v to adjust the hue from '0' to '100' . Press ^ to increase the green shade of the video image. Press v to increase the purple shade of the video image. NOTE: Hue adjustment is available only for Movie and Game mode.
Saturation	This feature can adjust the color saturation of the video image. Use ^ or v to adjust the saturation from '0' to '100'. Press ^ to increase the monochrome appearance of the video image. Press v to increase the colorful appearance of the video image. NOTE: Saturation adjustment is available only for video input.
Reset Color Settings	Resets your monitor's color settings to the factory defaults.

Display Settings

Use the **Display Settings** to adjust image.



Aspect Ratio	Adjust the image ratio to **Wide 16:9**, **Auto Resize**, **4:3** or **1:1**.
Sharpness	This feature can make the image look sharper or softer. Use ▲ or ▼ to adjust the sharpness from '0' to '100'.
Noise Reduction	Improve the motion picture quality by reducing noise on image edge.
Dynamic Contrast	**Dynamic Contrast** adjusts the contrast ratio to 2,000,000 : 1. Push the → button to select the **Dynamic Contrast** "On" or "Off" . **Dynamic Contrast** provides higher contrast if you choose Game mode and Movie mode.
Uniformity Compensation	Select screen brightness and color uniformity compensation settings. **Calibrated** is factory calibrated setting by default. **Uniformity Compensation** adjusts different areas of the screen with respect to the center to achieve uniform brightness and color over the entire screen. For optimal screen performance, Brightness and Contrast for some preset modes (Standard, Color Temp.) will be disabled when **Uniformity Compensation** is turned On.

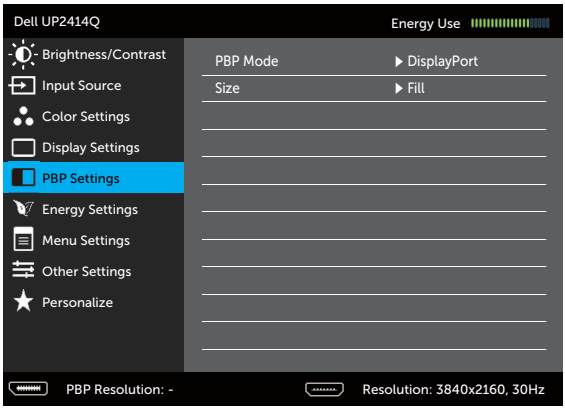
DisplayPort 1.2	Press the button to enable or disable DisplayPort 1.2. To use the HBR2 feature, enable DP1.2 to get 3840x2160, 60Hz. See Setting Up the DP1.2 Display for more information. **NOTE:** Ensure that your graphics card can support these features before selecting DP1.2. Wrong settings may result in blank screen. Some graphics cards do not support MCCS (Monitor Control Command Set) at DP1.2. In these cases, DDM (Dell Display Manager) may not run. **NOTE:** Ensure that your graphics card driver can support DP1.2 with MST feature, capable of displaying 3840 x 2160 at 60Hz and its driver supports DisplayID v1.3, or the display may not show correctly.
Display Info	Displays the monitor's current settings.
Reset Display Settings	Select this option to restore default display settings.

PBP Settings

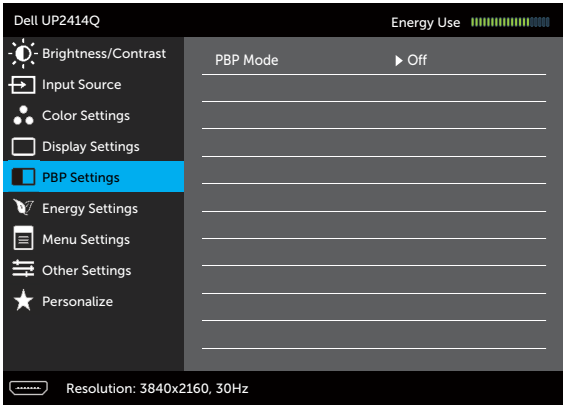
This function brings up a window displaying image from another input source. Thus you can watch two images from different sources at the same time.

Right-Window (select from Input Source)	Left–window (select from PBP source)		
	Mini DP	DP	HDMI
Mini DP	X	X	√
DP	X	X	√
HDMI	√	√	X

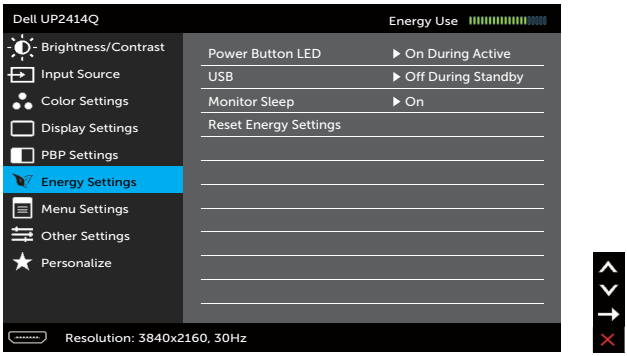
PBP submenu when PBP On



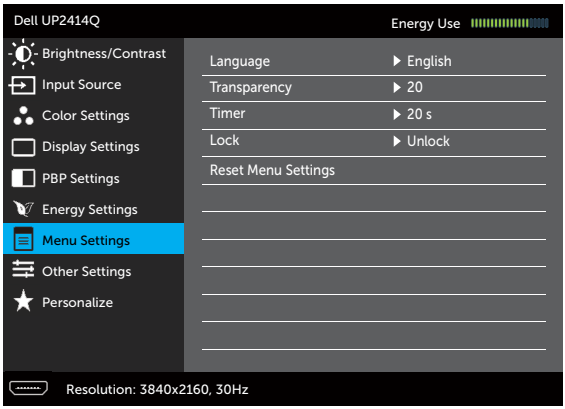
PBP submenu when PBP Off



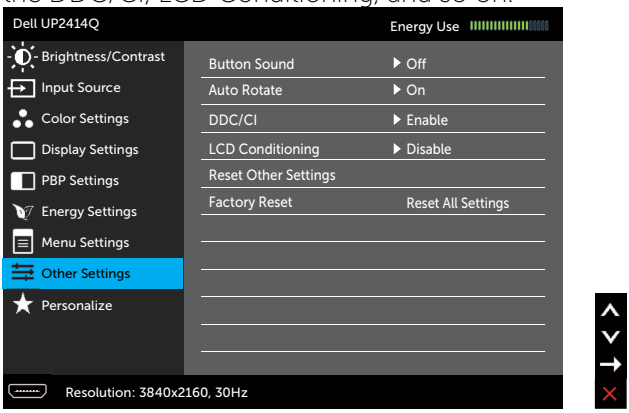
PBP Mode	To turn On or Off Picture by Picture (PBP).

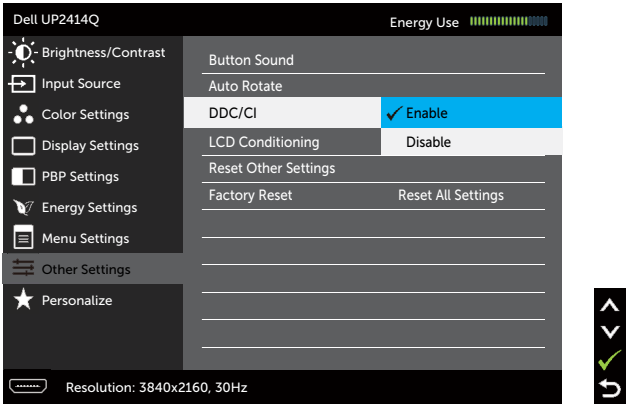
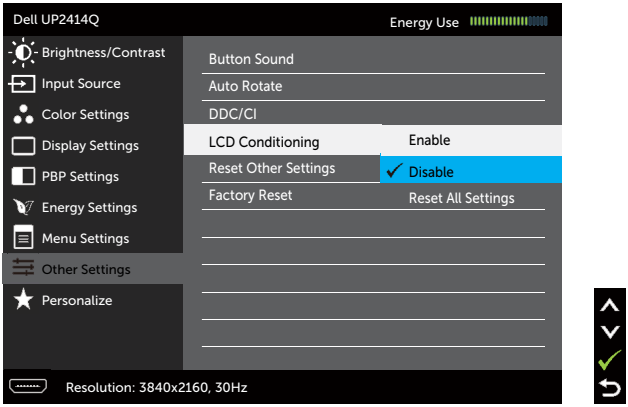
	Size	Select the PBP window size. • **Aspect Ratio:** Adjust the image ratio of PBP mode according video input . • **Full:** Full screen of PBP mode.
	Energy Settings	
	Power Button LED	Allows you to set the power LED indicator On or Off.
	USB	Allows you to enable or disable USB function during monitor standby mode. **NOTE:** USB On/Off under standby mode is only available when the USB upstream cable is unplugged. This option will be greyed out when the USB upstream cable plugs in.
	Monitor Sleep	Allow you to set Monitor Sleep On or Off.
	Reset Energy Settings	Select this option to restore default **Energy Settings**.

Menu Settings

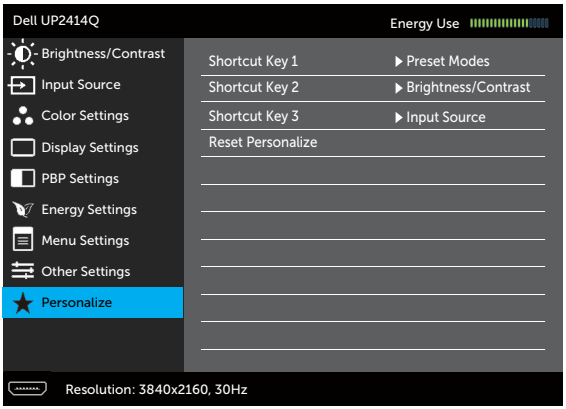


Language	Language option to set the OSD display to one of eight languages (English, Spanish, French, German, Brazilian Portuguese, Russian, Simplified Chinese or Japanese).
Transparency	This function is used to change the OSD background from opaque to transparent.
Timer	Sets the length of time the OSD will remain active after the last time you pressed a button. Use the ^ and v buttons to adjust the slider in 1 second increments, from 5 to 60 seconds.
Lock	Controls user access to adjustments. When **Lock** is selected, no user adjustments are allowed. All buttons are locked. **NOTE:** **Lock** function – Either soft lock (through OSD menu) or hard lock (Press and hold the button above power button for 10 sec) **Unlock** function– Only hard unlock (Press and hold the button above power button for 10 sec)
Reset Menu Settings	Select this option to restore default **Menu Settings**.

	Other Settings	Select this option to adjust the OSD settings, such as the DDC/CI, LCD Conditioning, and so on. 
	Button Sound	The monitor beeps every time a new option is selected in the menu. This button enables or disables the sound.
	Auto Rotate	This display is equipped with an orientation sensor. Rotating the display from Landscape to Portrait (in wall mount) will automatically trigger the OSD to be rotated accordingly. If Dell Display Manager (DDM) is installed and with suitable PC graphics card, the screen content will also be rotated accordingly. Set **Auto Rotate** to **Off** to disable this feature.

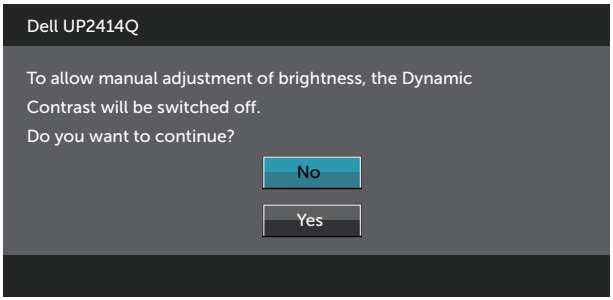
DDC/CI	DDC/CI (Display Data Channel/Command Interface) allows your monitor parameters (brightness, color balance etc) to be adjustable via software on your computer. You can disable this feature by selecting **Disable**. Enable this feature for best user experience and optimum performance of your monitor. 
LCD Conditioning	Helps reduce minor cases of image retention. Depending on the degree of image retention, the program may take some time to run. You can enable this feature by selecting **Enable**. 
Reset Other Settings	Select this option to restore default other settings, such as DDC/CI.
Factory Reset	Reset all OSD settings to the factory preset values.

	Personalize	User can select from **Preset Modes**, **Brightness/ Contrast**, **Input Source**, **Aspect Ratio**, **PBP Mode** and set as shortcut key.
	Reset Personalization	Allows you to restore shortcut key to the default setting.

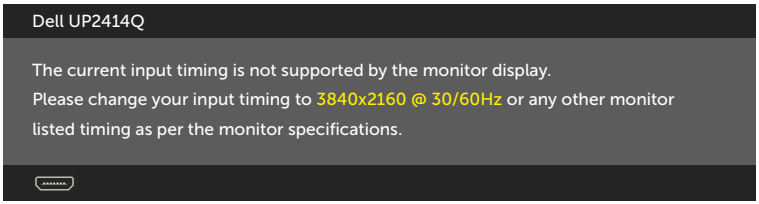


OSD Warning Messages

When the **Dynamic Contrast** feature is enabled (in these preset modes: Game or Movie), the manual brightness adjustment is disabled.

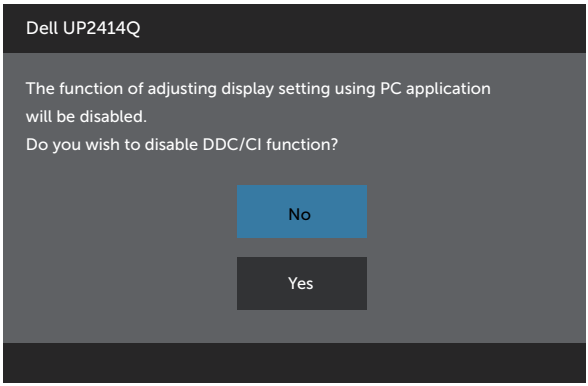

Dell UP2414Q
To allow manual adjustment of brightness, the Dynamic Contrast will be switched off.
Do you want to continue?
No
Yes

When the monitor does not support a particular resolution mode you will see the following message:

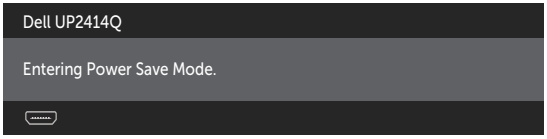

Dell UP2414Q
The current input timing is not supported by the monitor display.
Please change your input timing to 3840x2160 @ 30/60Hz or any other monitor listed timing as per the monitor specifications.

This means that the monitor cannot synchronize with the signal that it is receiving from the computer. See Monitor Specifications for the Horizontal and Vertical frequency ranges addressable by this monitor. Recommended mode is 3840 x 2160.

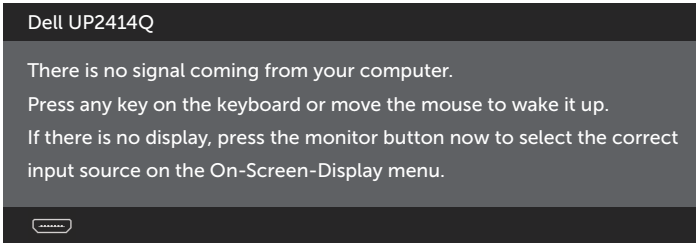
You will see the following message before the DDC/CI function is disabled.


Dell UP2414Q
The function of adjusting display setting using PC application will be disabled.
Do you wish to disable DDC/CI function?
No
Yes

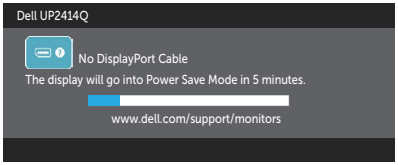
When monitor enters **Power Save Mode**, the following message appears:



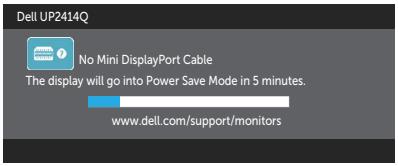
Activate the computer and wake up the monitor to gain access to the OSD. If you press any button other than the power button, one of the following messages will appear depending on the selected input:


Dell UP2414Q
There is no signal coming from your computer.
Press any key on the keyboard or move the mouse to wake it up.
If there is no display, press the monitor button now to select the correct input source on the On-Screen-Display menu.

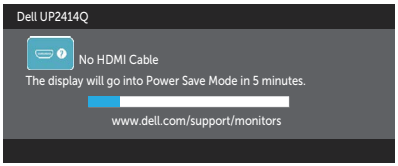
If either HDMI, DP or m-DP input is selected and the corresponding cable is not connected, a floating dialog box as shown below appears.



or


Dell UP2414Q
No Mini DisplayPort Cable
The display will go into Power Save Mode in 5 minutes.
www.dell.com/support/monitors

or



See Troubleshooting for more information.

Setting the Maximum Resolution

In Windows Vista®, Windows® 7 or Windows® 8/Windows® 8.1:

1. For Windows® 8/Windows® 8.1, select the Desktop tile to switch to classic desktop.
2. Right-click on the desktop and click **Screen Resolution**.
3. Click the Dropdown list of the Screen resolution and select **3840 x 2160**.
4. Click **OK**.

If you do not see 3840 x 2160 as an option, you may need to update your graphics driver. Depending on your computer, complete one of the following procedures:

If you have a Dell desktop or portable computer:

- Go to www.dell.com/support, enter your service tag, and download the latest driver for your graphics card.

If you are using a non-Dell computer (portable or desktop):

- Go to the support site for your computer and download the latest graphic drivers.
- Go to your graphics card website and download the latest graphic drivers.

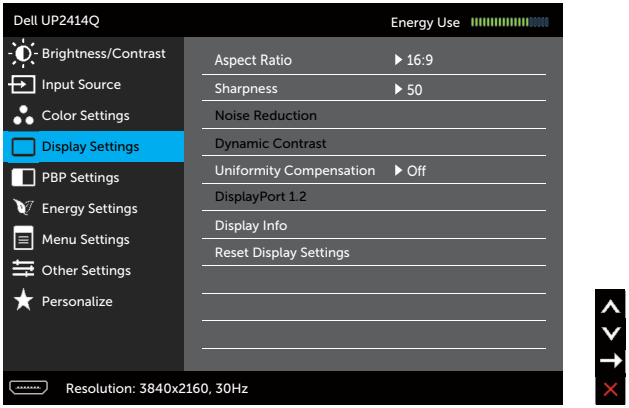
NOTE: It may be necessary to adjust the font size when using the maximum resolution in this Display. To change the font size go to (Windows® 7 and Windows® 8/Windows® 8.1):
Control Panel > Appearance and Personalization > Display

Setting Up the DP1.2 Display

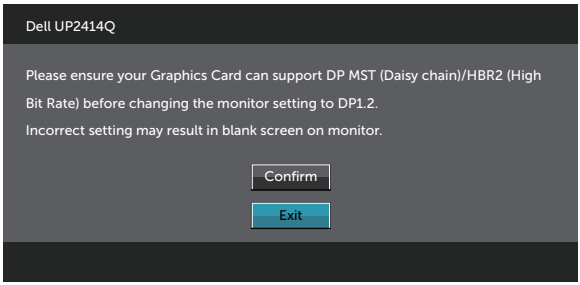
The default out of factory setting in the UP2414Q is DP1.1a.
To enable 3840 x 2160 at 60 Hz, ensure the graphics card of the DP source is DP1.2 certified with MST feature, capable of supporting resolution up to 3840 x 2160 at 60 Hz, and its driver supports DisplayID v1.3, then change the DP setting to DP1.2 by performing the below steps:

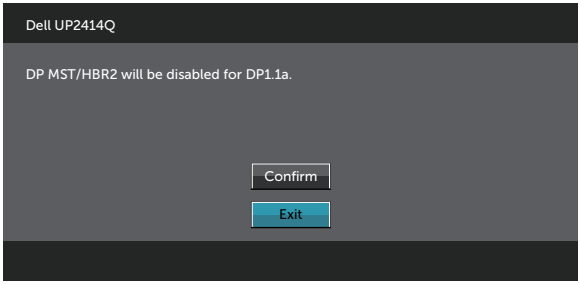
A) Monitor is able to show content

1. Use OSD button to navigate to **Display Settings**.



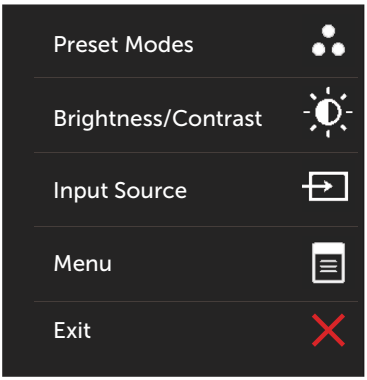
2. Go to **DisplayPort 1.2** selection.
3. Select **Enable** or **Disable** accordingly.
4. Follow the screen message to confirm selection of DP1.2 or DP1.1a.


Dell UP2414Q
Please ensure your Graphics Card can support DP MST (Daisy chain)/HBR2 (High Bit Rate) before changing the monitor setting to DP1.2.
Incorrect setting may result in blank screen on monitor.
Confirm
Exit

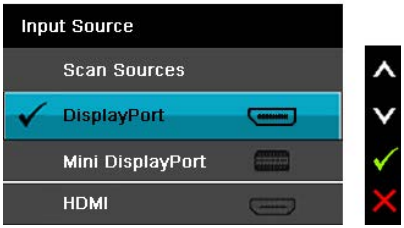


B) Monitor fails to show any content (blank screen)

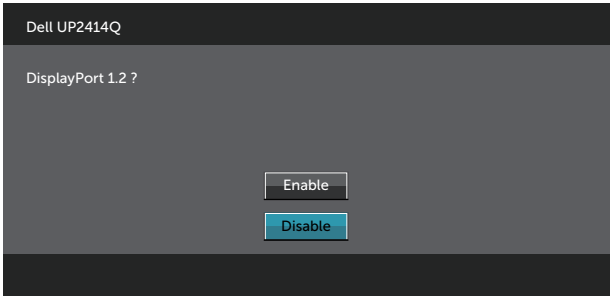
1. Press OSD button to invoke the **Input Source** OSD menu.



2. Use the ^ or v button to highlight **DisplayPort** or **Mini DisplayPort**.



3. Press and hold the ✓ button for approximately 8 sec.
4. The **DisplayPort** configuration message will appear:

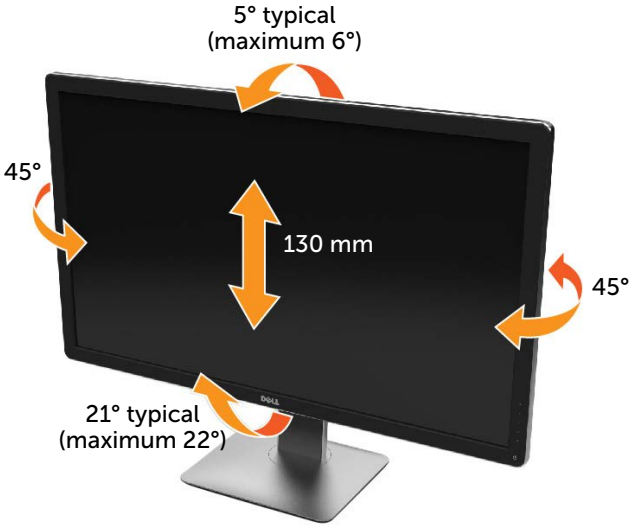


5. Use the ✓ button to enable DP1.2 or ✗ button to exit without making any changes.

Repeat the above steps to change the setting back to DP1.1a if necessary.

Using the Tilt, Swivel and Vertical Extension

NOTE: This is applicable for a monitor with a stand. When any other stand is bought, please refer to the respective stand setup guide for set up instructions.



NOTE: The stand is detached when the monitor is shipped from the factory.

Rotating the Monitor

Before you rotate the monitor, your monitor should be fully vertically extended and fully tilted up to avoid hitting the bottom edge of the monitor.

NOTE: To use the Display Rotation function (Landscape versus Portrait view) with your Dell computer, you require an updated graphics driver that is not included with this monitor. To download the graphics driver, go to www.dell.com/support and see the Download section for Video Drivers for latest driver updates.

NOTE: When in the Portrait View Mode, you may experience performance degradation in graphic-intensive applications (3D Gaming and etc.).

Adjusting the Rotation Display Settings of Your System

After you have rotated your monitor, you need to complete the procedure below to adjust the Rotation Display Settings of your System.

NOTE: If you are using the monitor with a non-Dell computer, you need to go the graphics driver website or your computer manufacturer website for information on rotating the 'contents' on your display.

To adjust the Rotation Display Settings:

1. Right-click on the desktop and click **Properties**.
2. Select the **Settings** tab and click **Advanced**.
3. If you have an ATI graphics card, select the **Rotation** tab and set the preferred rotation.
   If you have an nVidia graphics card, click the **nVidia** tab, in the left-hand column select **NVRotate**, and then select the preferred rotation.
   If you have an Intel® graphics card, select the Intel graphics tab, click **Graphic Properties**, select the **Rotation** tab, and then set the preferred rotation.

NOTE: If you do not see the rotation option or it is not working correctly, go to www.dell.com/support and download the latest driver for your graphics card.

Troubleshooting

△ **CAUTION:** Before you begin any of the procedures in this section, follow the Safety Instructions.

Self-Test

Your monitor provides a self-test feature that allows you to check whether your monitor is functioning properly. If your monitor and computer are properly connected but the monitor screen remains dark, run the monitor self-test by performing the following steps:

1. Turn Off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn On the monitor.

The floating dialog box should appear on-screen (against a black background) if the monitor cannot sense a video signal and is working correctly. While in self-test mode, the power LED remains white. Also, depending upon the selected input, one of the dialog boxes shown below will continuously scroll through the screen.

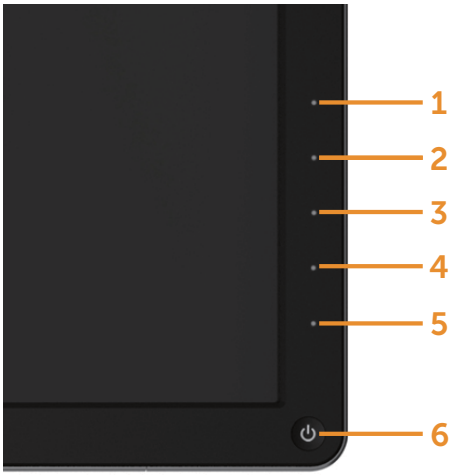
4. This box also appears during normal system operation, if the video cable becomes disconnected or damaged.
5. Turn Off your monitor and reconnect the video cable; then turn On both your computer and the monitor.

If your monitor screen remains blank after you use the previous procedure, check your video controller and computer, because your monitor is functioning properly.

Built-in Diagnostics

Your monitor has a built-in diagnostic tool that helps you determine if the screen abnormality you are experiencing is an inherent problem with your monitor, or with your computer and video card.

NOTE: You can run the built-in diagnostics only when the video cable is unplugged and the monitor is in self-test mode.



To run the built-in diagnostics:

1. Ensure that the screen is clean (no dust particles on the surface of the screen).
2. Unplug the video cable(s) from the back of the computer or monitor. The monitor then goes into the self-test mode.
3. Press and hold the Button **1** and Button **4** on the front panel simultaneously for 2 seconds. A gray screen appears.
4. Carefully inspect the screen for abnormalities.
5. Press the Button **4** on the front panel again. The color of the screen changes to red.
6. Inspect the display for any abnormalities.
7. Repeat steps 5 and 6 to inspect the display in green, blue, black, white screens.

The test is complete when the white screen appears. To exit, press the Button **4** again.

If you do not detect any screen abnormalities upon using the built-in diagnostic tool, the monitor is functioning properly. Check the video card and computer.

Common Problems

The following table contains general information about common monitor problems you might encounter and the possible solutions.

Common Symptoms	What You Experience	Possible Solutions
No Video/Power LED Off	No picture	• Ensure that the video cable connecting the monitor and the computer is properly connected and secure. • Verify that the power outlet is functioning properly using any other electrical equipment. • Ensure that the power button is depressed fully. • Ensure that the correct input source is selected via the Input Source menu. • Check the Power Button LED option under **Energy Settings** in OSD Menu.
No Video/Power LED On	No picture or no brightness	• Increase brightness & contrast controls via OSD. • Perform monitor self-test feature check. • Check for bent or broken pins in the video cable connector. • Run the built-in diagnostics. • Ensure that the correct input source is selected via the Input Source menu.

Missing Pixels	LCD screen has spots	• Cycle power On-Off. • Pixel that is permanently Off is a natural defect that can occur in LCD technology. • For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.
Stuck-on Pixels	LCD screen has bright spots	• Cycle power On-Off. • Pixel that is permanently Off is a natural defect that can occur in LCD technology. • For more information on Dell Monitor Quality and Pixel Policy, see Dell Support site at: http://www.dell.com/support/monitors.
Brightness Problems	Picture too dim or too bright	• Reset the monitor to **Factory Settings**. • Adjust brightness & contrast controls via OSD.
Safety Related Issues	Visible signs of smoke or sparks	• Do not perform any troubleshooting steps. • Contact Dell immediately.
Intermittent Problems	Monitor malfunctions on & off	• Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Reset the monitor to **Factory Settings**. • Perform monitor self-test feature check to determine if the intermittent problem occurs in self-test mode.

Missing Color	Picture missing color	• Perform monitor self-test feature check. • Ensure that the video cable connecting the monitor to the computer is connected properly and is secure. • Check for bent or broken pins in the video cable connector.
Wrong Color	Picture color not good	• Try different color **Preset Modes** in **Color Settings** OSD. • Change the **Input Color Format** to **RGB** or **YPbPr** in the **Color Settings** OSD. • Run the built-in diagnostics.
Image retention from a static image left on the monitor for a long period of time	Faint shadow from the static image displayed appears on the screen	• Use the **Power Management** feature to turn Off the monitor at all times when not in use (for more information, see Power Management Modes). • Alternatively, use a dynamically changing screensaver.

Product Specific Problems

Specific Symptoms	What You Experience	Possible Solutions
Screen image is too small	Image is centered on screen, but does not fill entire viewing area	• Check the **Aspect Ratio** setting in **Display Settings** OSD. • Reset the monitor to **Factory Settings**.
Cannot adjust the monitor with the buttons on the front panel	OSD does not appear on the screen	• Turn Off the monitor, unplug the power cord, plug back, and then turn On the monitor.
No Input Signal when user controls are pressed	No picture, the LED light is white	• Check the signal source. Ensure the computer is not in the power saving mode by moving the mouse or pressing any key on the keyboard. • Check to make sure Video Source to DisplayPort or Mini DisplayPort or HDMI is powered and playing video media. • Check whether the signal cable is plugged in properly. Re-plug the signal cable if necessary. • Reset the computer or video player.
The picture does not fill the entire screen.	The picture cannot fill the height or width of the screen	• Due to different video formats (aspect ratio) of DVDs, the monitor may display in full screen. • Run the built-in diagnostics.
Unable to see Post-screen or Vbios setting	May miss the post screen or Vbios setting during boot up	• Disable sleep mode in monitor and reboot PC. Turn **Off** the **Monitor Sleep** in **Energy Settings** OSD, then reboot the PC to show the Post-screen or Vbios.

Troubleshooting the Card Reader

CAUTION: Do not remove the device while reading or writing media. Doing so may cause loss of data or malfunction in the media.

Problem	Cause	Solution
Drive letter is not assigned. (Windows® XP only)	Conflict with network drive letter.	• - Right-click **My Computer** icon on the desktop. - Click on **Manage**. - In the Computer Management window that appears select **Disk Management**. - In the list of drives that appear in the right panel, right-click the removable drive and then click **Change Drive Letter and Paths**. - Select **Change**, and in the drop-down box that appears, specify a drive letter for the removable drive. **NOTE**: While choosing the drive letter choose one that is not assigned to the mapped network drives. - Click **OK**, then click **OK** once again in the screen that appears.
Drive letter is assigned, but the media is not accessible	The media needs reformatting.	• Right-click the drive in Explorer and choose **Format** from the resulting menu.

The media has been ejected during writing or erasing.	Displays the error message, "Error copying file or folder." Displays the error message, "Cannot write folder (folder name) or file (file name)," during writing, or, "Cannot remove folder (folder name) or file (file name),". While erasing, you cannot write or erase in the same folder or file name.	• Reinsert the media and write or erase again. • Format the media for writing or erasing the same folder or file name.
Despite the disappearance of the pop-up window, the media has been ejected while the LED was blinking.	Although the pop-up window disappears during writing, if you eject your media while the LED is still blinking, then you cannot complete your action on the media.	• Format the media for writing or erasing the same folder or file name.
Cannot format or write on the media.	Write-protect switch is enabled.	• Verify that the write-protect switch of the media is unlocked.
Card reader is not working	USB interface is not working.	• Check that your monitor is powered On. • Reconnect the upstream cable from your computer to the monitor. • Reinsert the media. • Switch Off and then turn On the monitor again. • Reboot the computer.

Appendix

WARNING: Safety Instructions

WARNING: Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.

For information on safety instructions, see the Product Information Guide.

FCC Notices (U.S. Only) and Other Regulatory Information

For FCC notices and other regulatory information, see the regulatory compliance website located at: http://www.dell.com/regulatory_compliance.

Contact Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).

NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Visit http://www.dell.com/support/.
2. Verify your country or region in the Choose A Country/Region dropdown menu at the bottom of the page.
3. Click Contact Us on the left side of the page.
4. Select the appropriate service or support link based on your need.
5. Choose the method of contacting Dell that is convenient for you.

Setting Up Your Monitor

Setting the display resolution to 3840 x 2160 (maximum)

For maximum display performance while using the Microsoft Windows operating systems, set the display resolution to 3840 x 2160 pixels by performing the following steps:

In Windows XP®:

1. Right-click on the desktop and click **Properties**.
2. Select the **Settings** tab.
3. Move the slider-bar to the right by pressing and holding the left-mouse button and adjust the screen resolution to 3840 x 2160.
4. Click **OK**.

In Windows Vista®, Windows® 7 or Windows® 8/Windows® 8.1:

1. Right-click on the desktop and click **Personalization**.
2. Click **Change Display Settings**.
3. Move the slider-bar to the right by pressing and holding the left-mouse button and adjust the screen resolution to 3840 x 2160.
4. Click **OK**.

If you do not see 3840 x 2160 as an option, you may need to update your graphics driver. Please choose the scenario below that best describes the computer system you are using, and follow the provided directions:

1: If you have a Dell™ desktop or a Dell™ portable computer with internet access.

2: If you have non Dell™ desktop, portable computer, or graphic card.

If you have a Dell™ desktop or a Dell™ portable computer with internet access

1. Go to http://www.dell.com/support/, enter your service tag, and download the latest driver for your graphics card.
2. After installing the drivers for your Graphics Adapter, attempt to set the resolution to 3840 x 2160 again.

NOTE: If you are unable to set the resolution to 3840 x 2160, please contact Dell™ to inquire about a Graphics Adapter that supports these resolutions.

If you have non Dell™ desktop, portable computer, or graphic card

In Windows XP®:

1. Right-click on the desktop and click **Properties**.
2. Select the **Settings** tab.
3. Select **Advanced**.
4. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
5. Refer to the graphic card provider website for updated driver (for example, http://www.ATI.com OR http://www.NVIDIA.com).
6. After installing the drivers for your Graphics Adapter, attempt to set the resolution to 3840 x 2160 again.

In Windows Vista®, Windows® 7 or Windows® 8/Windows® 8.1:

1. Right-click on the desktop and click **Personalization**.
2. Click **Change Display Settings**.
3. Click **Advanced Settings**.
4. Identify your graphics controller supplier from the description at the top of the window (e.g. NVIDIA, ATI, Intel etc.).
5. Refer to the graphic card provider website for updated driver (for example, http://www.ATI.com OR http://www.NVIDIA.com).
6. After installing the drivers for your Graphics Adapter, attempt to set the resolution to 3840 x 2160 again.

NOTE: If you are unable to set the resolution to 3840 x 2160, please contact the manufacturer of your computer or consider purchasing a graphics adapter that will support the video resolution of 3840 x 2160.

Procedures for setting up dual monitors in Windows Vista®, Windows® 7 or Windows® 8/Windows® 8.1

Content

(a) **For Windows Vista®**
(b) **For Windows® 7**
(c) **For Windows® 8/Windows® 8.1**
(d) **Setting Display Styles For Multiple Monitor**

(a) For Windows Vista®

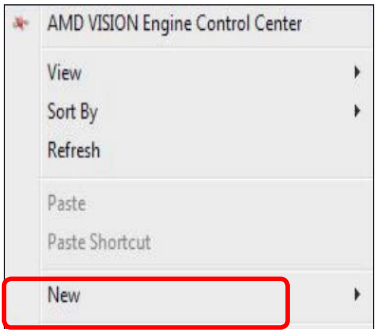
Connect the external monitor(s) to your laptop or desktop using a video cable (DP, HDMI etc.) and follow any of the below setup method.

Method 1: Using keyboard shortcut "Win+P"

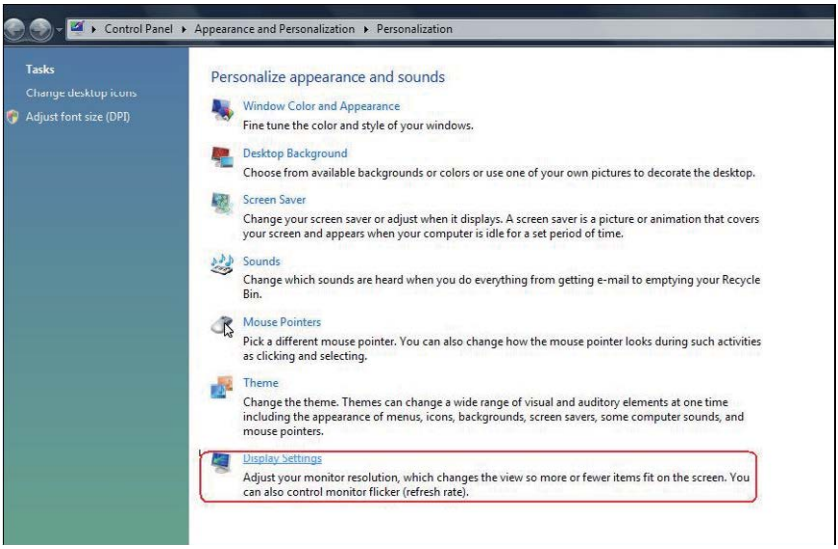
1. Press the **Windows logo key** + **P** on your keyboard.
2. While holding down the **Windows logo key**, press **P** to toggle between the display selections.

Method 2: Using the "Personalize" menu

1. Right-click on the desktop and click **Personalize**.

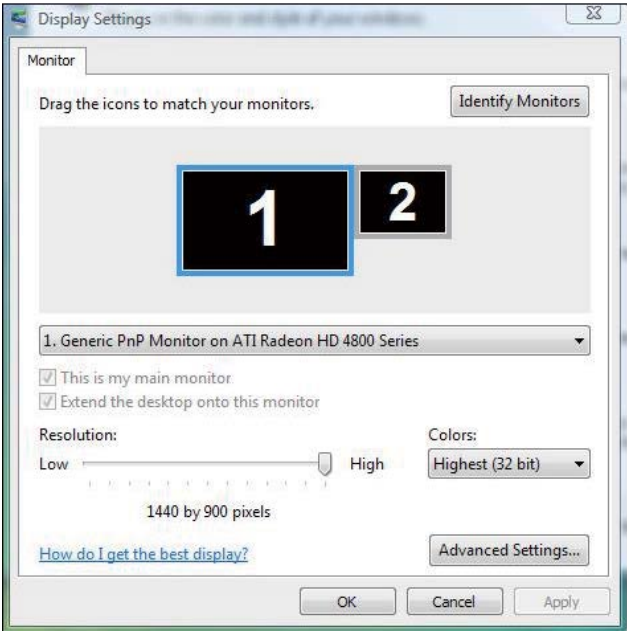


2. Click **Display Settings**.


Control Panel ▸ Appearance and Personalization ▸ Personalization
Tasks
Change desktop icons
Adjust font size (DPI)
Personalize appearance and sounds
Window Color and Appearance
Fine tune the color and style of your windows.
Desktop Background
Choose from available backgrounds or colors or use one of your own pictures to decorate the desktop.
Screen Saver
Change your screen saver or adjust when it displays. A screen saver is a picture or animation that covers your screen and appears when your computer is idle for a set period of time.
Sounds
Change which sounds are heard when you do everything from getting e-mail to emptying your Recycle Bin.
Mouse Pointers
Pick a different mouse pointer. You can also change how the mouse pointer looks during such activities as clicking and selecting.
Theme
Change the theme. Themes can change a wide range of visual and auditory elements at one time including the appearance of menus, icons, backgrounds, screen savers, some computer sounds, and mouse pointers.
Display Settings
Adjust your monitor resolution, which changes the view so more or fewer items fit on the screen. You can also control monitor flicker (refresh rate).

3. Click **Identify Monitors**.

- You may need to restart your system and repeat steps 1 to 3 if the system does not detect the added monitor.



(b) For Windows® 7

Connect the external monitor(s) to your laptop or desktop using a video cable (DP, HDMI etc.) and follow any of the below setup method.

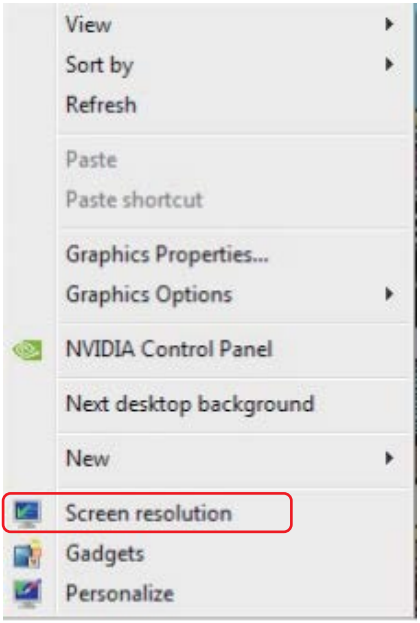
Method 1: Using keyboard shortcut "Win+P"

1. Press the **Windows logo key** + **P** on your keyboard.

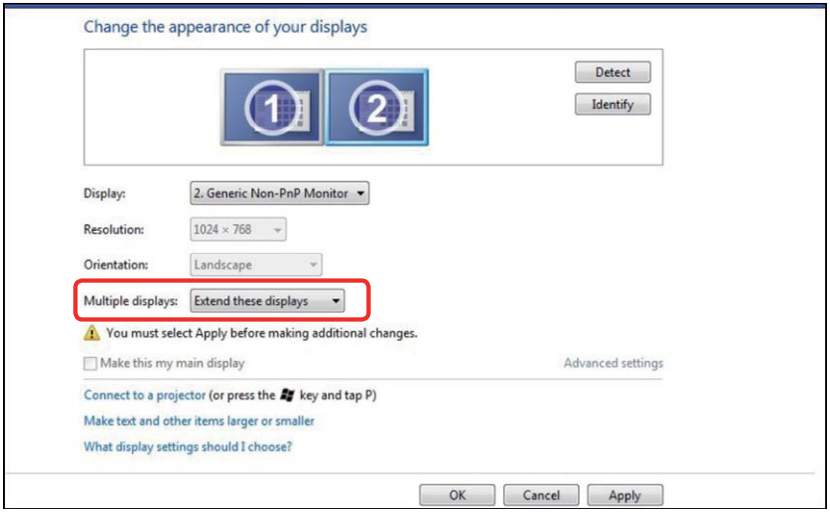
2. While holding down the **Windows logo key**, press **P** to toggle between the display selections.

Method 2: Using the "Screen Resolution" menu

1. Right-click on the desktop and click **Screen resolution**.



2. Click **Multiple displays** to choose a display selection. If you do not see the additional monitor listed, click **Detect**.
   - You may need to restart your system and repeat steps 1 to 2 if the system does not detect the added monitor.

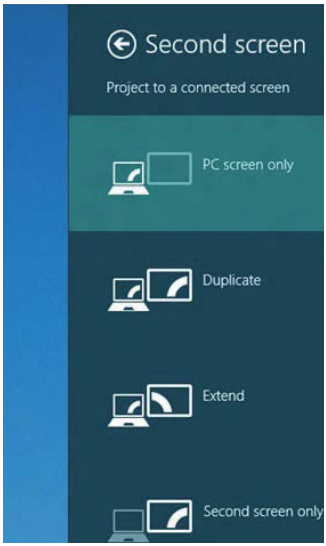


(c) For Windows® 8/Windows® 8.1

Connect the external monitor(s) to your laptop or desktop using a video cable (DP, HDMI etc.) and follow any of the below setup method.

Method 1: Using keyboard shortcut "Win+P"

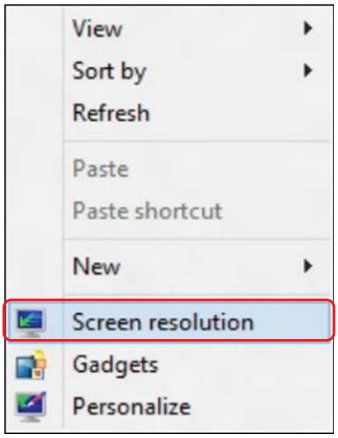
1. Press the **Windows logo key** + **P** on your keyboard.
2. While holding down the **Windows logo key**, press **P** to toggle between the display selections.



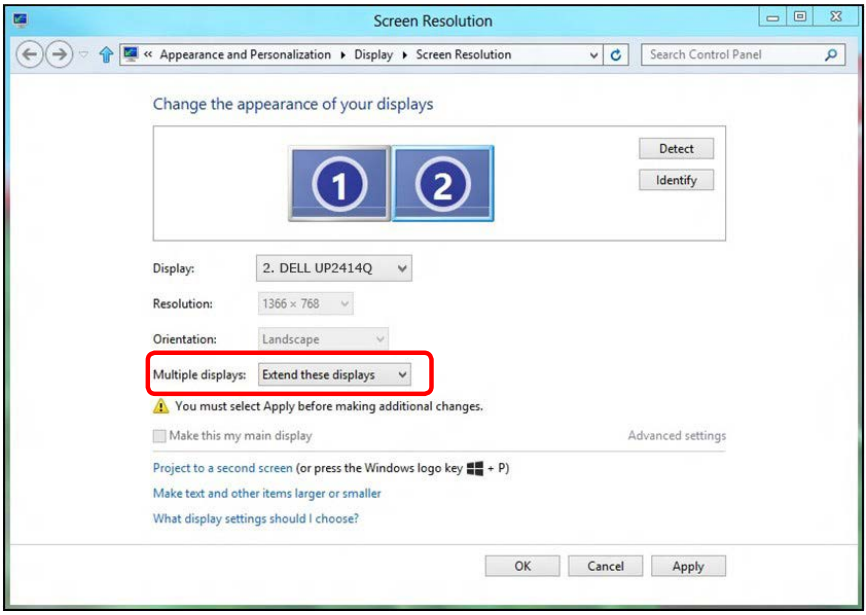
Method 2: Using the “Screen Resolution” menu

1. From the **Start** screen, select **Desktop** tile to switch to the Classic Windows desktop.

2. Right-click on the desktop and click **Screen resolution**.



3. Click **Multiple displays** to choose a display selection. If you do not see the additional monitor listed, click **Detect**.
   - You may need to restart your system and repeat steps 1 to 3 if the system does not detect the added monitor.



(d) Setting Display Styles For Multiple Monitor

After the external monitor(s) have been set up, users can select the desired display style from Multiple displays menu: Duplicate, Extend, Show Desktop On.

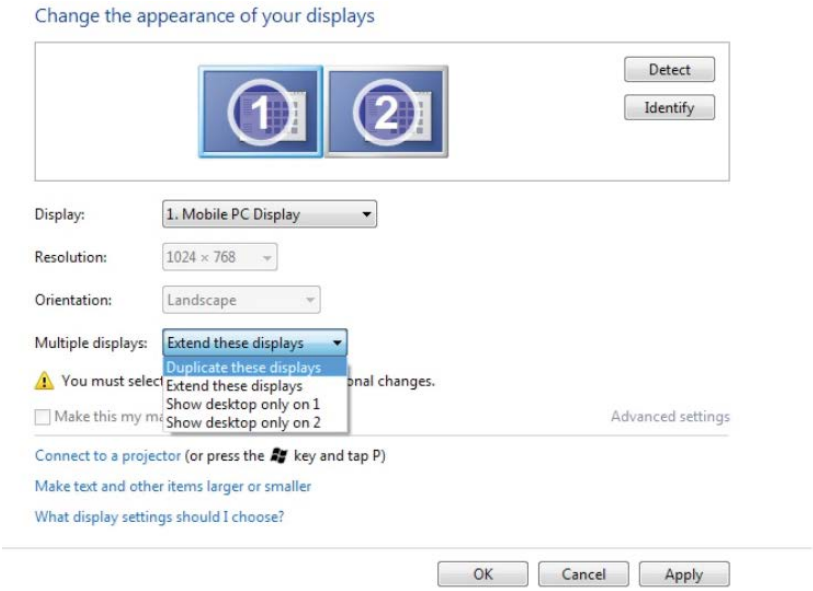
NOTE: Please optimize the size of the icons and fonts on multiple monitors that suits the user preference.

- Duplicate these displays: Duplicate the same screen on two monitors with the same resolution, chosen based on the monitor with a lower resolution.

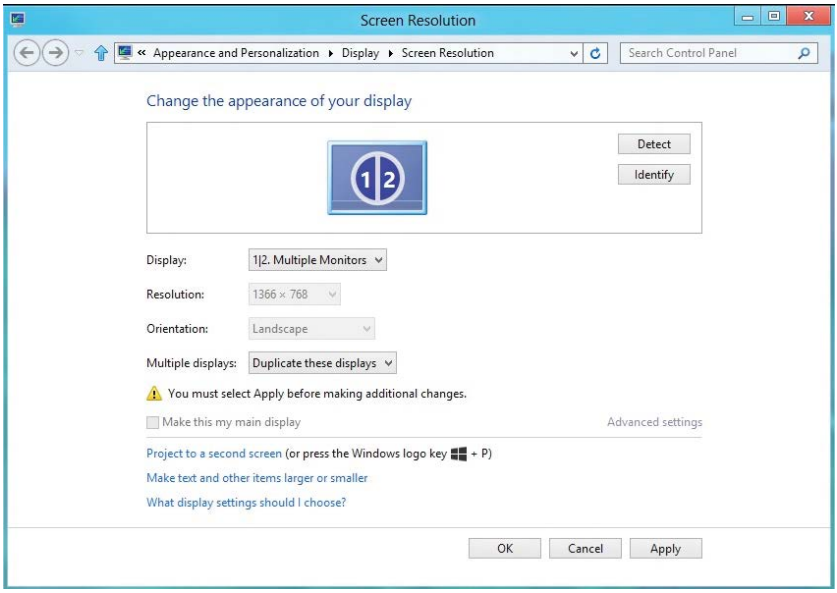
(i) For Windows Vista®

[DUPLICATE NOT AVAILABLE]

(ii) For Windows® 7



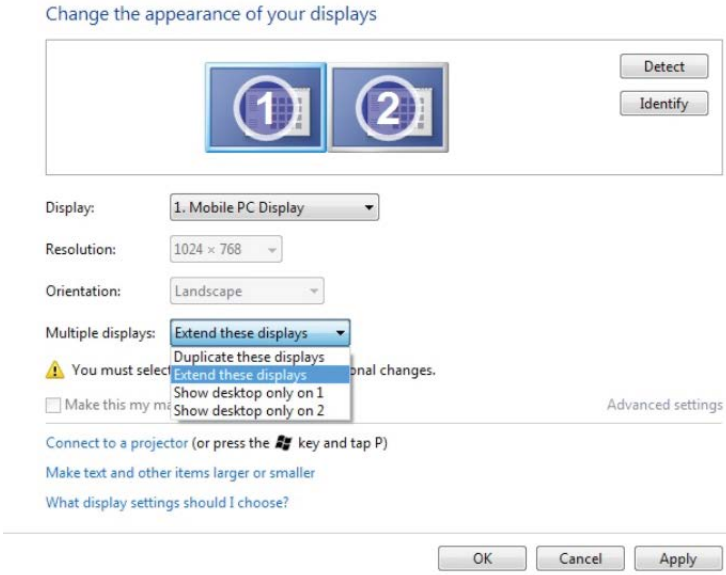
(iii)For Windows® 8/Windows® 8.1



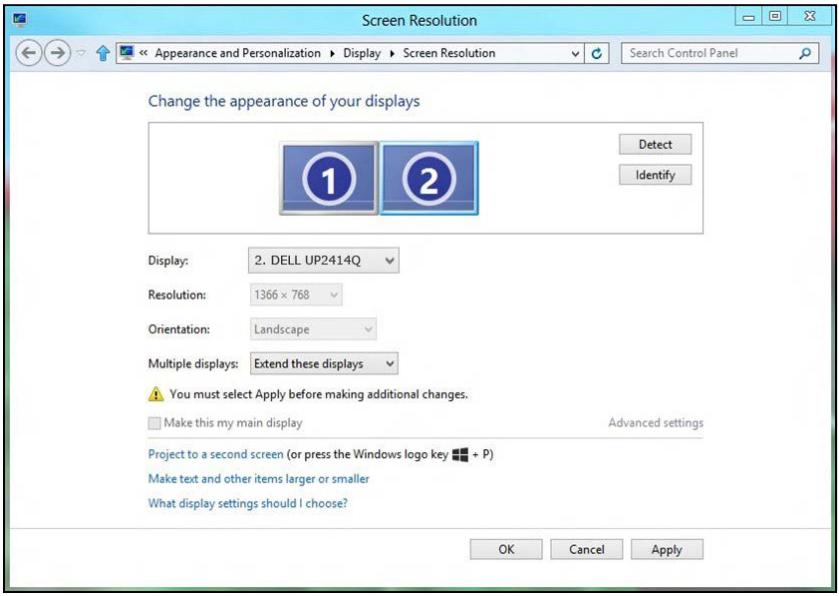
- **Extend these displays:** This option is recommended when an external monitor is connected to a laptop, and each monitor can display different screen independently to improve user convenience. The relative position of the screens can be set up here, for example monitor 1 may be set up to be to the left of monitor 2 or vice versa. This depends on the physical position of the LCD monitor in relation to the laptop. The horizontal line displayed on both monitors can be based on the laptop or external monitor. These are all adjustable options, and all a user need do is drag the monitor of the main screen to the extended monitor.

(i) For Windows Vista®

(ii) For Windows® 7

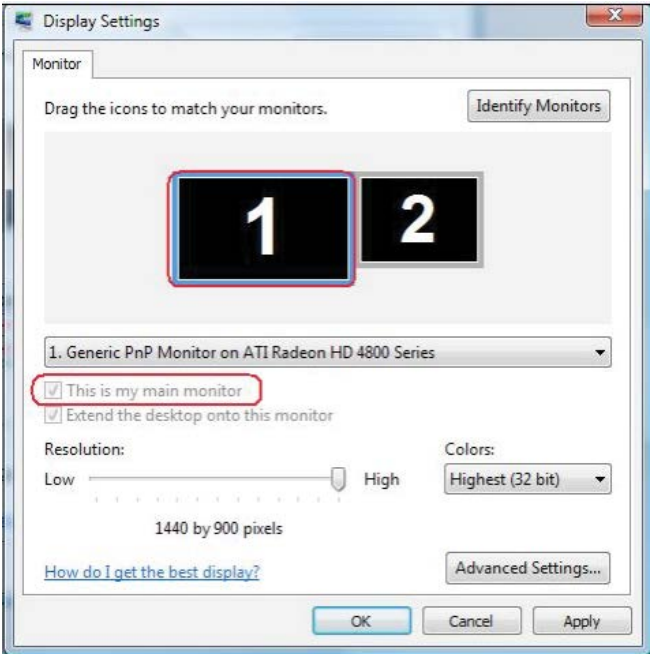


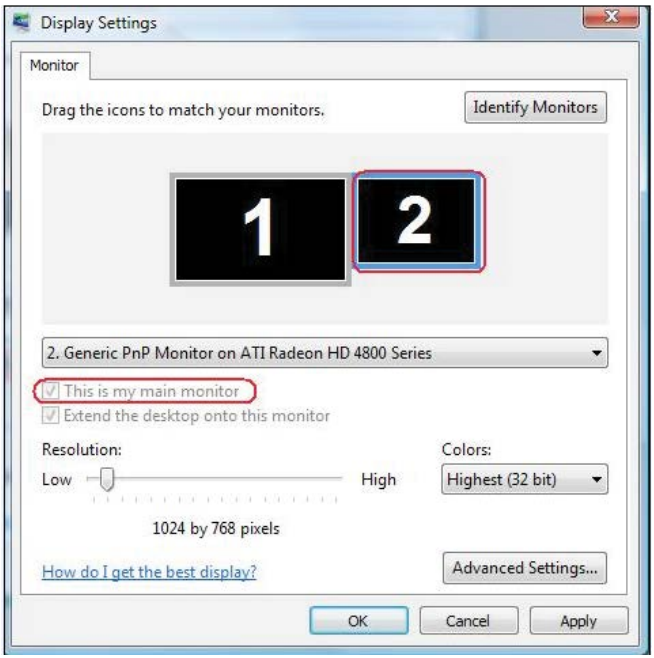
(iii) For Windows® 8/Windows® 8.1



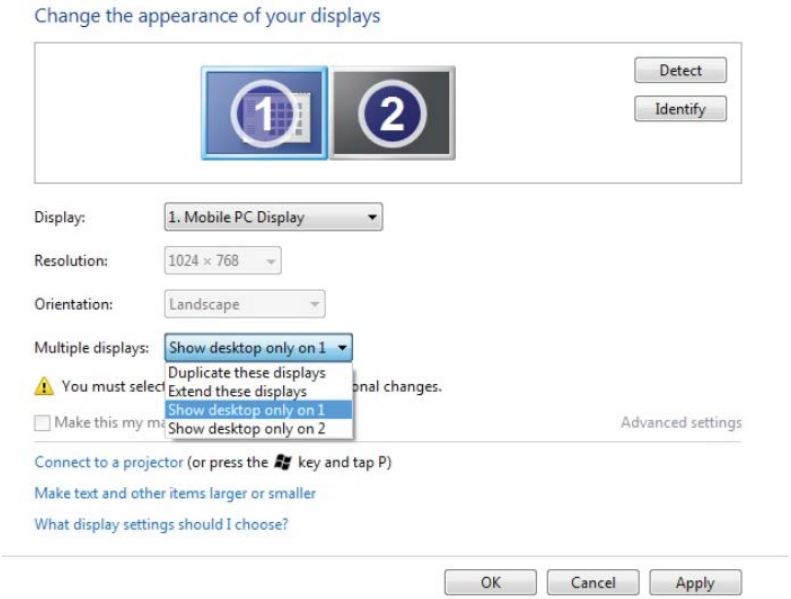
- **Show desktop only on...:** Display the status of a particular monitor. This option is typically chosen when the laptop is used as a PC so the user can enjoy a large external monitor. Most current laptops support mainstream resolutions. As shown in the figure above, the resolution of the laptop monitor is only 1366 x 768, but after connecting a 23.8" external LCD monitor, users can immediately improve their visual enjoyment to 3840 x 2160 UHD quality.

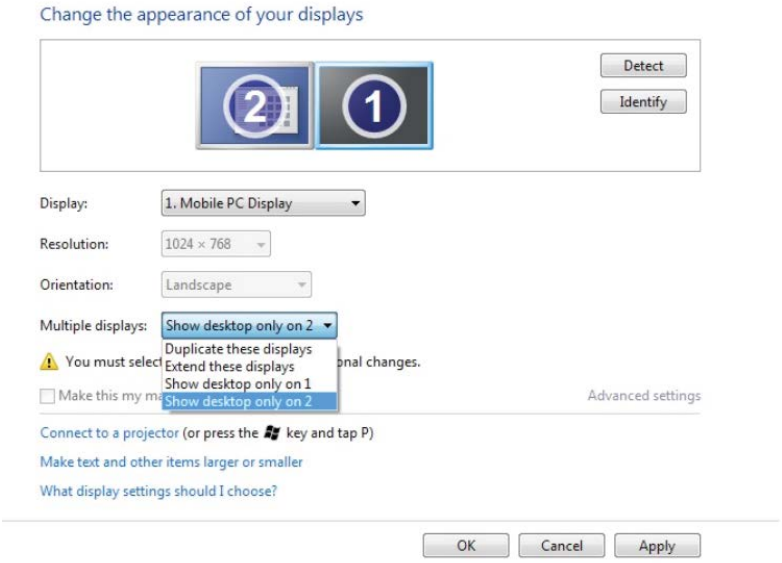
(i) For Windows Vista®





(ii) For Windows® 7





(iii) For Windows® 8/Windows® 8.1